

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING FACSIMILE TRANSMITTED TO THE  
UNITED STATES PATENT AND TRADEMARK OFFICE, FAX NO. (703)305-9822 ON 25 June 2002.  
JOSEPH E. MAENNER J. E. Maenner

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Renyuan GAO et al.

Serial No.: 10/045,317

: Group Art Unit: Not Yet Assigned

Filed: 7 November 2001

: Examiner: Not Yet Assigned

For: POLYMER OPTICAL WAVEGUIDES  
ON POLYMER SUBSTRATES

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Sir:

**CERTIFICATION**

I hereby certify that the documents included herewith, including patent application (17 pages), drawing (1 sheet), Declaration and Power of Attorney (4 pages), Assignment and cover sheet (5 pages), and Non-Provisional Utility Patent Application Transmittal Sheet (2 pages), are true and accurate copies of the documents filed with the U.S. Patent and Trademark Office through the United States Postal Service Express Mail Service on November 7, 2001.

Respectfully Submitted,

25 June 2002  
Date

J. E. Maenner  
Joseph E. Maenner  
Reg. No. 41,964  
Photon-X, Inc.  
291 Great Valley Parkway  
Malvern, PA 19355  
Tel: (610) 695-6553  
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E-mail: jmaenner@photon-x.net

RECORDATION FORM COVER SHEET  
PATENTS ONLY

Attorney Docket  
No.: PHX-0038

To the Assistant Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Renyuan Gao  
Donald S. Bitting  
Robert M. Mininni  
Robert A. Norwood  
Kazuya Takayama

2. Name and address of receiving party(ies):

Photon-X, Inc.  
291 Great Valley Parkway  
Malvern, PA 19355

3. Nature of conveyance:

☒ Assignment      ☐ Merger  
☐ Security Agreement      ☐ Change of Name  
☐ Other:

Execution Date: 7 November 2001

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: 31 October 2001

A. Patent Application No.(s):

B. Patent No.(s):

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence document should be mailed:

Joseph E. Maenner, Esquire  
Photon-X, Inc.  
291 Great Valley Parkway  
Malvern, PA 19355  
Telephone: (610) 695-6553  
Facsimile: (610) 240-9774  
E-Mail: jem@photon-x.net

6. Total number of applications and patents involved: [1]

7. Total fee (37 CFR 3.41) Cal. 1 x \$40.00 = \$ 40.00

☒ Enclosed  
☐ Authorized to be charged to deposit account

8. Deposit account number:

DO NOT USE THIS SPACE

9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Joseph E. Maenner  
Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments and document: [4]

JOINT

**ASSIGNMENT**

**WHEREAS**, we, **Renyuan GAO**, a citizen of the People's Republic of China, with a post office address of 413 Strafford Avenue, Wayne, Pennsylvania 19087, **Donald S. BITTING**, a citizen of the United States of America with a post office address of 37 Rim View Lane, Reading, Pennsylvania 19607, **Robert M. MININNI**, a citizen of the United States of America with a post office address of 20 Farmersville Road, Califon, New Jersey 07830, **Robert A. NORWOOD**, a citizen of the United States of America with a post office address of 114 Waterwillow Road, West Chester, Pennsylvania 19380, and **Kazuya TAKAYAMA**, a citizen of Japan, with a post office address of 606 Parkview Drive, Phoenixville, Pennsylvania 19460, hereinafter generally referred to as "ASSIGNORS", have invented a certain new and useful

**Polymer Optical Waveguides on Polymer Substrates**

for which we have executed a United States patent application, Application No. \_\_\_\_\_, filed \_\_\_\_\_, 20\_\_\_\_, and

**ASSIGNORS** authorize **ASSIGNEE** or **ASSIGNEE's** representative to insert the Application Number and Filing date of this application if they are unknown at the time of execution of this Assignment.

**WHEREAS**, **Photon-X, Inc.**, a Pennsylvania corporation having a place of business at 291 Great Valley Parkway, Malvern, PA 19355, hereinafter generally referred to as "**ASSIGNEE**", is desirous of acquiring said invention and said patent application.

**NOW, THEREFORE**, in consideration of the sum of One Dollar and other good and valuable executed consideration, the full receipt and sufficiency of all of which are hereby acknowledged, and intending to be legally bound hereby, we, the undersigned **ASSIGNORS**, hereby agree to sell, assign, transfer and convey and by these presents do sell, assign, transfer and convey unto the above-named **ASSIGNEE**, the whole and entire right, title and interest

in and to said invention as described in the above patent application, for the territory of the United States and its possessions and territories and all foreign countries;

in and to the above patent application and any and all related United States and foreign patent applications disclosing said invention, including provisionals, non-

provisionals, divisions and continuations thereof, along with all rights of priority created by said patent application under any treaty relating thereto; and

in and to all United States and foreign patents which may be granted on any and all of said patent applications, including extensions, reissues and reexamination certificates thereof;

said invention, application(s) and patent(s) to be held and enjoyed by the above-named ASSIGNEE, for ASSIGNEE's own use and benefit, and for ASSIGNEE's legal representatives and assigns to the full end of the term or terms for which said patent(s) may be granted, as fully and entirely as the same would have been held by the undersigned ASSIGNORS had this assignment and sale not been made; and for the aforesaid consideration ASSIGNORS hereby covenant, agree and undertake to execute, whenever requested by the above-named ASSIGNEE, all patent applications, assignments, lawful oaths and any other papers which ASSIGNEE may deem necessary or desirable for securing to ASSIGNEE or for maintaining for ASSIGNEE all the patent(s) hereby assigned or agreed to be assigned; all without further compensation to the undersigned ASSIGNORS.

Nov 6, 2001  
(Date)

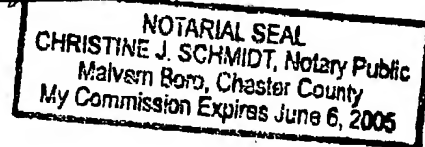
[Signature] (Seal)

COMMONWEALTH OF PENNSYLVANIA :  
: ss.  
COUNTY OF CHESTER :

Before me, a notary public in and for the State and County aforesaid, on this 6<sup>th</sup> day of November, 2001, personally appeared **RENYUAN GAO**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Christine J. Schmidt  
Notary Public

My Commission Expires:



11/7/01  
(Date)

Donald S. Bitting (Seal)

COMMONWEALTH OF PENNSYLVANIA

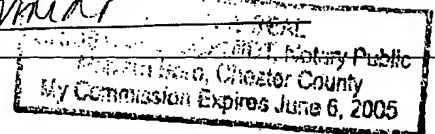
:  
: SS.  
:

COUNTY OF CHESTER

Before me, a notary public in and for the State and County aforesaid, on this 7<sup>th</sup> day of November, 2001, personally appeared **DONALD S. BITTING**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Christine J. Schmidt  
Notary Public

My Commission Expires



11-7-01  
(Date)

Robert M. Mininni (Seal)

COMMONWEALTH OF PENNSYLVANIA

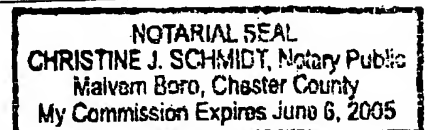
:  
: SS.  
:

COUNTY OF CHESTER

Before me, a notary public in and for the State and County aforesaid, on this 7<sup>th</sup> day of November, 2001, personally appeared **ROBERT M. MININNI**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Christine J. Schmidt  
Notary Public

My Commission Expires

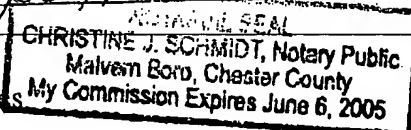


11/7/01  
(Date)

[Signature] (Seal)

COMMONWEALTH OF PENNSYLVANIA :  
: ss.  
COUNTY OF CHESTER :

Before me, a notary public in and for the State and County aforesaid, on this 7<sup>th</sup> day of November, 2001, personally appeared **ROBERT A. NORWOOD**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Christine J. Schmidt  
Notary Public  
My Commission Expires 

11/07/01  
(Date)

Kazuya Takayama (Seal)

COMMONWEALTH OF PENNSYLVANIA :  
: ss.  
COUNTY OF CHESTER :

Before me, a notary public in and for the State and County aforesaid, on this 7<sup>th</sup> day of November, 2001, personally appeared **KAZUYA TAKAYAMA**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Christine J. Schmidt  
Notary Public  
My Commission Expires 